

WHAT IS CLAIMED IS:

Claim 1. A corrosion resistant prestressed float system, comprising one or more float units, each including a buoyant core encased within a polymeric coating, concrete encasing the core and polymeric coating, a corrosion resistant mesh to reinforce the concrete, and a plurality of corrosion resistant pretensioned fiber members extending the entire length of the unit.

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Claim 2. The float system of claim 1, further comprising a plurality of chaseways for receiving post tensioning members for interconnecting a plurality of the units in a desired manner.

Claim 3. The float system of claim 1, further comprising a vent extending from the core to an exterior surface of the concrete and in communication with the atmosphere for venting gases from the core to the atmosphere.

Claim 4. A corrosion resistant prestressed float unit comprising a buoyant core encased within a polymeric coating, concrete encasing the core and polymeric coating, a corrosion resistant mesh to reinforce the concrete, and a plurality of corrosion resistant pretensioned fiber members extending the entire length of the unit.

Claim 5. The float unit of claim 4, further comprising a vent extending from the core to an exterior surface of the concrete and in communication with the atmosphere for venting gases from the core to the atmosphere.

Claim 6. A floating dock system comprising a plurality of corrosion resistant prestressed float units, wherein the float units each comprise a buoyant core encased within a polymeric coating, concrete encasing the core and polymeric coating, a corrosion resistant mesh to reinforce the concrete, and a plurality of corrosion resistant pretensioned fiber members extending the entire length of the unit.

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Claim 7. The dock system of claim 6, further comprising a plurality of chaseways defined within each of the units and a plurality post tensioning members received within the chaseways for interconnecting a plurality of the units in a desired manner to provide the dock system

Claim 8. The dock system of claim 6, wherein one or more of the units includes a vent extending from the core to an exterior surface of the concrete and in communication with the atmosphere for venting gases from the core to the atmosphere.